

Draft Communication Strategy for Deployment of Continuous Monitors in LaPlace, LA
Dec. 5, 2019

This is a draft communication strategy for EPA OECA's deployment of continuous monitors in LaPlace, Louisiana, near the Denka Performance Elastomers LLC (Denka) facility. The communication strategy includes eight parts:

- (1) Overall themes
- (2) Points of contact
- (3) Community Outreach
- (4) Communication with LDEQ
- (5) Communication with Denka
- (6) Website
- (7) Talking Points/FAQs
- (8) Press Release

(1) Overall Themes

- Current monitoring data show the long-term average ambient air concentrations of chloroprene near the Denka facility is in the range of 0.5 – 1.5 µg/m³, depending upon the location of the monitor. This average would be lower but for occasional elevated concentrations that drive the average up.
- Elevated concentrations may be linked to infrequent (rather than routine) activities at the Denka facility that can be evaluated for opportunities to reduce emissions. EPA believes that identifying and addressing the causes of these elevated concentrations will lower the long-term average ambient air concentration of chloroprene near the Denka facility.
- The purpose of this monitoring program is to identify opportunities for additional chloroprene

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- The proposed ~~new~~additional monitoring program will not directly provide information about the public health risks to the community, but it will generate ~~additional~~ data that could be analyzed in a public health risk study.

(2) Points of Contact (to be determined)

- OECA
- ~~Region 6~~
- ~~QAQPS~~
- LDEQ
- [Others?]

(3) Community Outreach (additional elements to be determined)

- Community meeting
- Press release

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- [Other]

(4) Communication with LDEQ

- Per LDEQ’s suggestion, EPA will host monthly meetings/conference calls to share summary information (using an online platform if necessary) and discuss occurrence of sampling triggers and resulting canister data.
- EPA will not provide LDEQ with hard copies of the data unless specifically requested by LDEQ.

(5) Communication with Denka (additional elements to be determined)

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- Offer to share collected data with Denka

(6) Website

- Content
 - Summary of monitoring program and FAQ responses
 - Chloroprene concentrations from canister samples
- Internal Notes

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(7) Talking Points (To Be Converted into FAQs)

Overview of the Monitoring Program

- **Why is EPA changing the monitoring program? How is this different from the monitoring that was conducted to date?**
 - The purpose of monitoring conducted since 2016 (“Community Monitoring”) has been to determine the long-term ambient air concentrations of chloroprene in LaPlace, Louisiana.
 - Community Monitoring data over the past year, conducted by both EPA and Denka, has shown a steady decline in the average ambient air concentrations of chloroprene, and also a reduction in the frequency of air samples containing “elevated concentrations” of chloroprene. “Elevated concentrations” are chloroprene concentrations notably higher than the average chloroprene concentration of air samples taken in 2019. Over the last

six months, the monitoring data has shown average ambient air concentrations of chloroprene between 0.5 and 1.5 ug/m³.

- The purpose of the new monitoring program is to improve our ability to identify activities linked to high chloroprene concentrations, investigate the factors contributing to those elevated concentrations, and identify opportunities to reduce the frequency

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- What monitors will EPA use and how will the monitoring work?

- EPA will place a monitoring instrument, called an “SPod,” at each of EPA’s existing monitoring sites. An SPod is a monitoring instrument that contains a meteorological station to continuously measure wind speeds and directions, and a photoionization detector (PID) to continuously measure total ambient air concentrations of volatile organic compounds (VOCs). Chloroprene is a VOC. The SPods will also have sampling canisters to collect air samples whenever the PID detects a total concentration of VOCs above a specified “trigger” level.
- PIDs have been widely used for many years across numerous industries to measure VOC concentrations. EPA’s SPods will use PIDs that have the capability of detecting chloroprene (along with other VOCs).
- PIDs can tell us how much *total* VOCs are in the air, but they cannot tell us how much of that total amount is chloroprene. So, when the PID measures a predetermined amount of VOCs in the air (“the trigger level”), EPA will take a 24-hour air sample with a canister.
- The air sample will then be analyzed for chloroprene at a laboratory using the same EPA-approved standard method that is currently being used for the Community Monitoring. This is the same sample collection process and laboratory analytical procedures we have used since the inception of the EPA Community Monitoring campaign.

- What happens if a canister sample shows an “elevated” chloroprene concentration?

- factors, including both meteorological factors (e.g., wind speed), and activities at Denka’s facility. The investigation may lead to the identification of opportunities for chloroprene emission reduction at the facility.

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- 0.2 $\mu\text{g}/\text{m}^3$ is the cancer risk-based comparison level for chloroprene developed through an EPA Integrated Risk Information System (IRIS) assessment. This means that a population with an average lifetime inhalation exposure to 0.2 $\mu\text{g}/\text{m}^3$ of chloroprene has an expected 100-in-1 million risk of developing cancer.
- 0.2 $\mu\text{g}/\text{m}^3$ is not, however, a federally enforceable emissions limit for chloroprene. EPA recognizes the public health concern associated with the long-term exposure to chloroprene above that level. Accordingly, EPA is looking for opportunities to reduce the long-term ambient air concentrations near the Denka facility.
- Denka has already taken steps under an agreement with LDEQ to control many known sources of high chloroprene emissions. We believe the next step is to find unknown events and sources of high chloroprene emissions so that those emissions can be addressed. An elevated ambient air concentration of chloroprene is a good signal that a high emission event may have occurred. By investigating the circumstances around an elevated concentration, EPA believes those unknown sources of chloroprene emissions can be identified and addressed, leading to a reduction in long-term ambient air concentrations of chloroprene.
- Therefore, EPA is focusing on chloroprene concentrations high enough to signal the possibility of an infrequent or unusual event.
- **At what concentration of VOCs will EPA take a canister sample?**
 - Upon initial deployment of the SPods, EPA will set an initial sampling “trigger level” of [##] VOCs, above which EPA will take a canister sample. Based on Community Monitoring data, EPA believes this threshold is low and will result in samples being collected even when chloroprene concentrations are not elevated. EPA will adjust the trigger level to avoid sampling (and the associated costs) when chloroprene concentrations are not elevated. By starting low, and gradually raising the trigger level, EPA can be sure that it is not setting the trigger at a level that would miss a sample during an elevated concentration event.
 - Setting an appropriate VOC concentration “trigger level” is also challenging because it will be based on an average over minutes, but EPA’s investigation “action level” is based on a 24-hour average. Starting with a low threshold for taking air samples will allow EPA to collect data and adjust the threshold level to account for this discrepancy.
 - EPA will update the website with any changes to the threshold level.
- **Isn’t the 24-hour sample too long? How does that capture high spikes of chloroprene that only occur for a short period of time?**
 - A 24-hour sample has the dual benefits of providing a data set that is directly comparable to the Community Monitoring data, and also identifying sustained elevated concentrations that merit additional investigation.
 - A 24-hour sample will be taken whenever the PID measures VOC concentrations above the trigger level for a short period of time. Therefore, the SPod will take a sample even if the chloroprene emissions are high for less than 24 hours.

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- Will EPA continue Community Monitoring?

- Yes

Public Information/Website

- What data will be posted on the website and how frequently?

- Following analysis and quality assurance procedures at the laboratory, EPA will post the concentrations of chloroprene from any air canister samples.
- Data will be posted only after a canister sample is taken and analyzed. Data may not be posted until several weeks after the sample is taken due to the analysis and quality assurance procedures.

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- Will the data from the Community Monitoring and the new monitoring program be different?

- Both the Community Monitoring and the new monitoring program measure 24-hour average ambient air concentrations of chloroprene, but the two monitoring programs will result in different data because they take air canister samples at different times.

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- The new monitoring program, however, will only collect air samples when the SPod PIDs detect high concentrations of VOCs. Therefore, data from the new monitoring program are more likely to show higher concentrations of chloroprene, and less likely to show low or undetectable levels of chloroprene.
- The differences in the monitoring data do not mean that the data generated under either program is incorrect.

Post-Monitoring Actions

- If the air samples from the new monitoring program show elevated chloroprene concentrations, how will EPA know where the chloroprene is coming from?

- Because the Denka facility is the only local facility that uses chloroprene, any chloroprene emissions can be attributed to the Denka facility.

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- **Is EPA taking enforcement action against Denka and DuPont?**
 - EPA identified several potential violations and areas of concern in a 2016 inspection of the Denka facility.

Public Health

- **What are you doing to get ambient air concentrations of chloroprene below 0.2 µg/m³? Why is it acceptable for this community to continue being exposed at levels above this threshold?**
 - 0.2 µg/m³ is not a federally enforceable emissions limit for chloroprene. But EPA recognizes the public health concern associated with the long-term exposure to chloroprene above that level. Accordingly, EPA is looking for opportunities to reduce the long-term ambient air concentrations near the Denka facility.
- **What will the data tell us about health risks to the community?**
 - The Community Monitoring program is designed to provide information about the long-term ambient air concentrations of and exposure to chloroprene. The data from the new monitoring program is not appropriate for determining health risks from long term exposure to chloroprene because it is only measuring chloroprene concentrations during elevated concentration events.
 - But the new monitoring program will provide additional useful data for any public health or risk analysis.

(8) Press/Media

Draft Press Release for Deployment of Monitors in LaPlace, Louisiana

The U.S. Environmental Protection Agency (EPA) is continuing its investigation of chloroprene levels in LaPlace, Louisiana, by installing six new air pollution monitors. The monitors, which will be placed in the same locations as the air pollution monitors that EPA deployed in 2016, will run continuously and will produce data to identify high ambient air concentrations of chloroprene above baseline levels. The information generated by these monitors will help EPA and the Louisiana Department of Environmental Quality identify factors that contribute to high levels of chloroprene in the area.

[Could stop here or continue for more explanation]

EPA began monitoring ambient air concentrations of chloroprene in May 2016 and continues to take air samples from six locations once every six days. Although recent monitoring data shows lower 24-hour average chloroprene concentrations compared to the data from 2016, the data also continues to show fluctuating chloroprene concentrations and “spikes” of chloroprene concentrations that are notably higher than the other data points. Because the current monitoring program collects data only every six days, the factors corresponding to higher or lower chloroprene levels are difficult to identify.

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The new air pollution monitors will continuously monitor ambient air concentrations of air pollutants. If a monitor detects a high concentration of air pollutants, it will take a 24-hour air sample that will be analyzed in a laboratory to determine the amount of chloroprene in the air during the sampling period. By continuously monitoring air pollution concentrations and identifying the days that chloroprene concentrations are high, EPA and LDEQ will be better able to understand the events and conditions that contribute to higher levels of chloroprene.

To keep the public informed, ambient air concentrations of chloroprene from air samples collected by the monitors will be posted on EPA's website.

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